White Paper -- DRAFT -- Community-based Prevention
Occupational Health Services Building Block No. 2
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Introduction

This paper discusses the role Centers of Occupational Health & Education and pilot project attending doctors can play in primary and secondary prevention of disability due to workplace illness and injury. The paper outlines preliminary recommendations for promising prevention strategies to pursue in the OHS Pilot.

L&I envisions working together with up to two pilot Centers for Occupational Health and Education (Centers) along with pilot project attending physicians to test ways doctors can expand their role in occupational disability prevention. The purpose of implementing provider-based prevention strategies is to expand attending physicians' involvement in reducing work-related disability. By virtue of their role as health care experts, doctors can play an important leadership role in prevention of injuries and disability. L&I anticipates partnering with physician leaders from the Centers to implement several prevention strategies that have been successful in other parts of the world.

In order to improve attending doctors' involvement in workplace injury and disability prevention, the Centers will be expected to offer education and training to attending physicians in the pilot region(s). The training will focus on skills needed for the expanded role attending doctors, and their support staff, can play in reducing disability and preventing workplace injuries. The premise underlying physician involvement in prevention is that attending doctors who are knowledgeable about occupational health principles will contribute to substantial reductions in workplace injury and illness. Research shows that health care providers can reduce work related disability by 30 to 50 percent by improving injured worker's transition back to work. [1]

Purpose

This paper describes the role that Centers and pilot project attending physicians can play in prevention. The paper identifies desired traits for the pilot Centers and recommends including disability prevention education, training, and consultation services within the Center contracts. The paper also recommends preventative services to include in L&I's performance-based agreements with pilot project attending physicians. The recommendations proposed in this paper are based on:

- Review of information from general literature about workplace illness and injury prevention strategies.

[1] Loisel, P., et. al., "A Population-Based, Randomized Clinical Trial on Back Pain Management", *Spine*, 1997, 22(24), 2911-2918. Frank, J., "Preventing Disability from Work-Related Low-Back Pain", *Canadian Medical Association Journal*, 1998, 158(12): 1625-1631.

- Review of information from scientific literature regarding primary and secondary prevention strategies related to workplace illness and injuries.

- Key informant surveys conducted with over 20 leading programs in the United States that have developed prevention strategies as part of their health care delivery process.

- Review of provider responses to a Request for Information (RFI) conducted by L&I.

What's the current state?

Currently, the majority of health care organizations in Washington State and the United States do not provide preventive services aimed at reducing occupational injuries or preventing disability. Most health care delivery systems are organized around treatment and prevention of conditions covered by health insurance. A recent study for the California Workers' Compensation Institute found the most common non-occupational conditions paid for by health insurers are circulatory system disorders (15%), pediatric conditions (13%), mental disorders (13%), digestive system disorders (11%), and musculoskeletal injuries (10%).[2] Of these major conditions, the only one commonly paid for by workers' compensation insurers was musculoskeletal injuries. This helps to explain why prevention of occupational injuries has received little attention from attending doctors and primary care physicians.

The majority of primary care physician training is focused on prevention of non-occupational conditions such as heart disease, cancer, respiratory disorders, substance abuse, hypertension, sexually transmitted diseases, diabetes, and childhood diseases. [3] These conditions comprise the majority of health care needs in the State. Health care organizations, therefore, tend to devote greater attention to developing systematic prevention programs for these illnesses, rather than investing resources in occupational conditions. Little training, if any, is aimed at expanding physicians' understanding of methods for preventing occupational injuries, workplace illnesses, and disability. [4]

Failure to emphasize physician training in occupational health principles, leads to problems, such as:

- Delayed and ineffective communication between physicians and employers, which hinders return to work planning.
- Lack of physician involvement in assisting the employer and worker in finding modified duty work to safely transition the employee back to work.
- Limited health care provider involvement in advocating for ergonomic improvements to improve return to work and reduce the risk of re-injury.

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[2] Parry, T., Comparison of Workers' Compensation and Health Insurance Claims, *California Workers' Compensation Research Institute*, 1992.

[3] Harris, J.S., Health Promotion in the Workplace, in Occupational Medicine, Zenz, C., editor, Mosby, 1994, p. 1114-1127.

[4] Stanley, H., et. al., "The Occupational and Environmental Medicine Gap in the Family Medicine Curriculum", *Journal of Occupational and Environmental Medicine*, 39(12): 1183-1194.

- Lack of standardized methods for doctors to inform employers and workers about recurring injuries as a way to ensure worksite safety issues are addressed.
- Little or no provider communication with employers and workers about workplace hazards.

The current gaps in occupational health training and services create many opportunities to improve the effectiveness of injury and disability prevention services for injured workers and employers.

What's the desired future state?

The OHS Pilot offers L&I and the WCAC Health Care Subcommittee a chance to test a community-based approach to injury and disability prevention in one or two regions of the State. L&I has the opportunity to pilot provider agreements with Centers and attending doctors to increase the quality, availability, and effectiveness of prevention services for workers and employers. According to the research, this holds much promise for improving outcomes for injured workers. Research on this subject is beginning to show that doctors applying occupational health principles can reduce the number of injuries involving disability, improve worker outcomes, and maintain high satisfaction with care. [5]

L&I envisions using performance-based provider agreements linked with financial incentives as a strategy for expanding provider interest in offering prevention services. To maintain a focused effort, the Centers and L&I will need to target a limited number of conditions. This will require collaborating with physician leaders from the Centers to identify frequently recurring injuries where it is practical to attempt a prevention effort. Then, using an approach similar to prevention programs for non-occupational injuries, L&I and the Center can develop a local training and education approach to pilot with interested attending doctors.

What are the best ways to achieve the desired future state?

The following section reviews the most promising prevention strategies to test in the OHS Pilot. These strategies have already been tried in other parts of the world and have been shown to reduce disability and improve worker outcomes.

[5] Loisel, P., A Population-Based Randomized Clinical Trial on Back Pain Management. Frank, J., "Preventing Disability from Work-Related Low-Back Pain", 1625-1631. Bernacki, E., et. al., "Managed Care for Workers' Compensation: Three Years Experience in and Employee Choice State", *Journal of Occupational and Environmental Medicine*, 33(11): 76-91.

Discussion of Options

The following prevention methods have been tested and shown to reduce workplace injuries and disability. The scientific literature does not contain a large number of studies on this subject, so it is difficult to rank the strategies in order of effectiveness.

Primary Prevention (reducing injuries and illness)

- Reporting of sentinel injuries or clusters of injuries or illnesses to the employer, the organization's safety committee, and the workers' compensation insurer. [6]

- Worksite hazard evaluations and safety recommendations triggered by an occupational health specialist's assessment of worker illnesses or injuries. [7]

Secondary Prevention (reducing disability)

- Early medical diagnosis and treatment within first several weeks before disability risk begins, especially first 3-8 weeks. [8]

- Early service coordination that is well matched with the injury severity and disability risk factors. This should emphasize timely communication between the doctor, worker, employer representative, and L&I claims staff. [9]

- Early health care provider communication with employers and, if possible, with safety personnel to develop modified duty work that is consistent with the

[6] Herbert, R., et. al., "The Union Health Center: A Working Model of Clinical Care Linked to Preventative Occupational Health Services", *American Journal of Industrial Medicine*, 1997, 31: 263-273. Schulman, B., et. al., Workers' Compensation Occupational Health National Trends Study, University of Washington, 1997, 1-31. Feldstein, A., et. al., "Prevention of Work-Related Disability", *American Journal of Preventative Medicine*, 1998, 14(38), 33-39. McGrail, P. et. al., "A Comprehensive Initiative to Manage the Incidence and Cost Occupational Injury and Illness", *Journal of Occupational and Environmental Medicine*, 37(11) 1995: 1263-1268.

[7] Herbert, R. 263-273. Feldstein, A., et. al., "Prevention of Work-Related Disability", *American Journal of Preventative Medicine*, 1998, 14(38), 33-39. Bernacki, E., et. al., "An Ergonomics Program Designed to Reduce the Incidence of Upper Extremity Work Related Musculoskeletal Disorders", *Journal of Occupational and Environmental Medicine*, 1999, 41(12): 1032-1041.

[8] Loisel, P., "A Population-Based, Randomized Clinical Trial on Back Pain Management". Loisel, P. et. al., "Management of Occupational Back Pain: the Sherbrooke Model", *Occupational and Environmental Medicine*, 1994, 51: 597-602. Frank, 1625-1631. Christian, J., "Reducing Disability Days: Healing More than the Injury", *Journal of Workers' Compensation*, December 1999, 30-55. Mootz, R., et. al., *Strategies for Preventing Chronic Disability in Injured Workers*, *Topics in Clinical Chiropractic*, 6(3): 13-25.

[9] Brooker, A., et. al., "Managing Return to Work", *Accident Prevention*, July 1998, 29-33. Herbert, 263-273. Frank, 1625-1631. Bernacki, "Managed Care for Workers' Compensation", 1091-1097. Schulman, 1-31.

worker's functional capacity. [10]

- Timely consultation with or referral to an appropriate specialist if problems occur, such as, difficulty making a diagnosis, slow medical progress, or difficulty with return to work efforts. [11]

- Treatment plan that includes a return to work plan that is communicated clearly to the worker, employer, and L&I claims staff. [12]

- Early ergonomic assessment and improvements in work routine or workstation to facilitate safe, stable return to work. [13]

Preliminary Recommendations

Primary Prevention

Pilot Centers

1. Center reporting of sentinel injuries or clusters of injuries or illnesses to L&I and the employer.

2. Center worksite hazard evaluations and safety recommendations triggered by Center's assessment of worker illnesses or injuries.

Pilot Doctors

1. Attending doctor reporting of sentinel injuries or clusters of injuries or illnesses to L&I.

[10] Loisel, "A Population-Based, Randomized Clinical Trial on Back Pain Management", 2911-2918. Loisel, "Management of Occupational Back Pain: the Sherbrooke Model", 597-602. Frank, 1625-1631. Schulman, 1-31.

[11] Loisel, "A Population-Based, Randomized Clinical Trial on Back Pain Management", 2911-2918. Loisel, "Management of Occupational Back Pain: the Sherbrooke Model", 597-602. Mootz, 13-25. Herbert, 263-273.

[12] Frank, 1625-1631. Bernacki, "Managed Care for Workers' Compensation" 1091-1097. Schulman, 1-31.

[13] Loisel, "A Population-Based, Randomized Clinical Trial on Back Pain Management", 2911-2918. Loisel, "Management of Occupational Back Pain: the Sherbrooke Model", 597-602. Bernacki, "An Ergonomics Program Designed to Reduce the Incidence of Upper Extremity Work Related Musculoskeletal Disorders, 1032-1041. Bernacki, "Managed Care for Workers' Compensation", 1091-1097. Schulman, 1-31.

Secondary Prevention

Pilot Centers

1. Provide training, consultations, and information to pilot attending doctors to enhance the provider community's use of best practices for prevention of occupational injury and illness and disability.

2. Provide prevention services to injured workers and employers using the Center's providers. Provide service coordination aimed at increasing timely communication between the doctor, worker, employer representative, and L&I claims staff.

3. Offer timely consultation with appropriate specialist if problems occur, for instance: difficulty making a diagnosis, slow medical progress, or difficulty with return to work efforts.

4. Serve as a resource for early ergonomic assessment and improvements in work routine or workstation to facilitate safe, stable return to work.

Pilot Doctors

1. Offer early medical diagnosis and treatment within first several weeks before disability risk begins, especially first 3-8 weeks.

2. Identify the need for early service coordination that is well matched with the injury severity and disability risk factors.

3. Provide service coordination aimed at increasing timely communication between the doctor, worker, employer representative, and L&I claims staff.

4. Early communication with employers to develop modified duty work that is consistent with the worker's functional capacity.

5. Timely consultation with or referral to the appropriate specialist if problems occur, for instance: difficulty making a diagnosis, slow medical progress, or difficulty with return to work efforts.

6. Treatment plan that includes a return to work plan that is communicated clearly to the worker, employer, and L&I claims staff.